At the White Mesa Mill site, several areas were chained (to remove unwanted vegetation) to support an active cattle ranch prior to mill operations. These areas were reseeded but are now mostly void of vegetation due to overgrazing. Current vegetation consists primarily of crested wheatgrass and invasive weeds. Annual weeds, rabbitbrush, snakeweed, sagebrush, and cheatgrass dominate vegetation in the surrounding areas, which include some abandoned dry farms. Areas that were neither cultivated nor chained support sagebrush communities with a sparse understory of grasses, including galleta and crested wheatgrass. Forbs are rarely found. Potential vegetation consists of more than 50 percent palatable grasses such as western wheatgrass, Indian ricegrass, needle-and-thread grass, and squirreltail; 15 to 20 percent increaser grasses, including galleta and blue grama; 25 percent decreaser browse plants, including winterfat; and 5 to 10 percent big sagebrush, ephedra, and other shrubs.

Truck transportation between Moab and the White Mesa Mill site would be along US-191. There is no existing rail route south of Moab; therefore, rail transport to White Mesa Mill is not considered an option. A slurry pipeline would follow mostly existing rights-of-way through federally administered lands. However, approximately 29 miles of new rights-of way would be required, which would occur in an area that likely supports a greater diversity and abundance of vegetation and wildlife than the other pipeline routes. For example, the region near Monticello, Utah, north of the White Mesa Mill site where the new right-of-way would pass, supports piñon-juniper forests, and scattered ponderosa pine stands dominate this zone at higher elevations.

Recent NRC environmental assessments for the White Mesa Mill site concluded that no threatened or endangered species were being adversely affected by current mill operations (IUC 2003).

A1−6.0 Borrow Areas

Preliminary consultations and investigations do not indicate the presence of threatened or endangered species at borrow sites. However, the proposed borrow areas may need further evaluation to determine habitat, species presence, and other ecological characteristics. Preliminary evaluations of these areas indicate that no aquatic resources are present. Before developing any borrow area, DOE, in consultation with USF&WS and BLM, would determine the need for habitat evaluations and surveys for species that may be affected. If threatened or endangered species or critical habitats were identified on a selected area, a mitigation plan would be developed or a different borrow area would be selected, in order to minimize or eliminate impacts. If impacts could not be avoided, additional Section 7 consultation would be required. Figure A1−3 shows the borrow area locations.

A1−6.1 Crescent Junction Borrow Area

The Crescent Wash borrow area is located within the Crescent Junction disposal site and shares the same environmental features.

A1−6.2 Floy Wash Borrow Area

The Floy Wash borrow area is within an area that has been previously used by the State of Utah Department of Transportation for borrow materials. It is located about 7 miles west of Crescent Junction and I-70. The Floy Wash borrow area includes a small reservoir with tamarisk as the main vegetative component. This area is subject to flooding and is also bordered by Floy Wash, located half a mile to the northwest and west. Floy Wash has 80 acres of native and exotic riparian and wetland habitats, including lentic wetlands and tamarisk and willow areas (BLM 2003a). BLM has rated the wash as a "functioning at risk" system, meaning that it fulfills some, but not all, of the definitions of a properly functioning riparian system (BLM 2002).

Potential vegetation of Mesa-Trook complex soils (USDA 1989), found on the Floy Wash borrow area, consists of shadscale, galleta grass, Indian ricegrass, and fourwing saltbush. Phacelia (another phacelia species, not the endangered clay phacelia [*Phacelia argillosa*] described in Section A1−8.1.3) and prickly pear cacti dominated vegetation observed during a site visit in April 2003, which reflects the history of the site as a gravel quarry. Other species observed include milkvetch, kochia, Gardner saltbush, mat saltbush, bud sagebrush, galleta, globemallow, and cheatgrass.

A1−6.3 Courthouse Syncline Borrow Area

The Courthouse Syncline borrow area is located several miles northwest of the Klondike Flats disposal site. This borrow area is located about 1 mile from Thompson Wash and Crescent Wash, both of which are intermittent and support tamarisk totaling approximately 34 acres. Otherwise, vegetation on the Courthouse Syncline borrow area is similar to that of the Klondike Flats disposal site.

A1−6.4 Klondike Flats Borrow Area

The Klondike Flats borrow area is located within the Klondike Flats disposal site and shares the same environmental features.

A1−6.5 Tenmile Borrow Area

The Tenmile borrow area is located about 7 miles west of the Klondike Flats site. No ephemeral or perennial surface water features have been identified in this area. Soils and potential natural vegetation at the Tenmile borrow area are classified as Nakai fine sandy loam; however, approximately 25 percent of the Tenmile borrow area consists of stabilized and active parabolic dunes of fine sand. Ephedra is the common dune stabilizer in the area. Other common plants are sand sage, hopsage, Indian ricegrass, and wild buckwheat in fine sand areas and fourwing saltbush, jimmyweed, rabbitbrush, galleta, and yucca in sandy loam areas. Tamarisk and greasewood occur in areas with relatively shallow ground water. The Tenmile borrow area is located within one-half mile of Tenmile Wash, an ephemeral wash system dominated by tamarisk.

Land in the area is administered by BLM. Blue Hills Road provides major access to the Tenmile borrow area, and the area is laced with interconnecting backcountry roads and trails. There is high recreational use of the general area.

A1−6.6 Blue Hills Road Borrow Area

The Blue Hills Road borrow area is located about 4 miles south of the Klondike Flats site. Soils at the Blue Hills Road borrow area are classified as Nakai fine sandy loam and the Toddler-Ravola-Glenton association. These soils and the potential natural vegetation are similar to that described for the Klondike Flats disposal site.

Land in the area is administered by BLM. Blue Hills Road provides major access to the Blue Hills Road borrow area, and the vicinity is laced with interconnecting backcountry roads and trails. There is high recreational use of the general area.

A1−6.7 LeGrand Johnson Borrow Area

This privately owned commercial gravel pit is located about 8 miles south of Moab along US-191 in Spanish Valley. The site is surrounded by other past or present quarry and borrow sites and other developments. Obtaining borrow materials from this site would not be expected to greatly alter the effects of current borrow area operations on the terrestrial environment.

A1−6.8 Papoose Quarry Borrow Area

This existing commercial quarry, owned by the Cotter Corporation, is located in Lisbon Valley south of SR-46 and at the intersection of CR-113 and CR-370. Obtaining borrow materials from this site would not be expected to greatly alter the effects of current quarry operations on the terrestrial environment.

A1−6.9 Blanding Borrow Area

The Blanding borrow area, located north of the White Mesa Mill site and northeast of Blanding, is near existing sand and gravel pits. This site can be readily accessed from US-191 and is on land administered by BLM. It lies within a designated transportation and utility corridor and is open to off-road vehicle use. Recapture Creek, a perennial stream, and an intermittent stream are located within the Blanding borrow area. Both watercourses are dominated by tamarisk, cottonwood, willow, and shrub oak (BLM 2002). Compared to other borrow areas under consideration, this site is believed to support greater wildlife diversity and abundance.

A1−6.10 White Mesa Mill Borrow Area

The White Mesa Mill borrow area is located south of Blanding at the head of a broad, heavily dissected canyon within the IUC property boundary. Sparse piñon-juniper, saltbush, and sagebrush communities currently dominate the area.